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09/711,129	11/12/2000	George Dean Hone	4214.1US	6459

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Laurence B Bond
Trask Britt
P O Box 2550
Salt Lake City, UT 84110

EXAMINER

PECHHOLD, ALEXANDRA K

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3671

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BEFORE THE BOARD OF PATENT APPEALS
AND INTERFERENCES

Application Number: 09/711,129
Filing Date: November 12, 2000
Appellant: HONE, GEORGE DEAN

Laurence Bond
For Appellant

EXAMINER'S ANSWER


Approval for new grounds
of rejection.

This is in response to the appeal brief filed June 14, 2004.

(1) *Real Party in Interest*

A statement identifying the real party in interest is contained in the brief.

(2) *Related Appeals and Interferences*

A statement identifying the related appeals and interferences which will directly affect or be directly affected by or have a bearing on the decision in the pending appeal is contained in the brief.

(3) *Status of Claims*

The statement of the status of the claims contained in the brief is incorrect. A correct statement of the status of the claims is as follows:

This appeal involves claims 1-3 and 6-15.

Claims 4, 5, 16, and 17 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

(4) *Status of Amendments After Final*

The appellant's statement of the status of amendments after final rejection contained in the brief is correct.

(5) *Summary of Invention*

The summary of invention contained in the brief is correct.

(6) *Issues*

The appellant's statement of the issues in the brief is substantially correct except for changes prompted by the new grounds of rejection, as noted below. The changes are as follows:

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I. Whether claim 1 is unpatentable under 35 U.S.C. § 103(a) over Shepherd (US 4,715,077) in view of Auer (U.S. Pat. 4,557,091).

II. Whether claims 2 and 3 are unpatentable under 35 U.S.C. § 103(a) over Shepherd (US Pat. 4,715,077) and Auer (U.S. Pat. 4,557,091) as applied to claim 1, and further in view of De Zen (US Pat. 6,189,269).

III. Whether claim 6 is unpatentable under 35 U.S.C. § 103(a) over Shepherd (US Pat. 4,715,077) in view of Auer (U.S. Pat. 4,557,091) and De Zen (US Pat. 6,189,269).

IV. Whether claims 7-10 is unpatentable under 35 U.S.C. § 103(a) over Shepherd (US Pat. 4,715,077), Auer (U.S. Pat. 4,557,091), and De Zen (US Pat. 6,189,269) as applied to claim 6 above, and further in view of Veenema (US Pat. 3,989,268).

V. Whether claims 11-15 are unpatentable under 35 U.S.C. § 103(a) over Shepherd (US Pat. 4,715,077) in view of Auer (U.S. Pat. 4,557,091), De Zen (US Pat. 6,189,269), and Veenema (US Pat. 3,989,268).

Note that claims 4, 5, 16, and 17 are no longer issues on appeal since these claims are now considered allowable dependent claims.

(7) Grouping of Claims

The appellant's statement in the brief that certain claims do not stand or fall together is not agreed with because in the new grounds of rejection, the Examiner is indicating that claims 4, 5, 16, and 17 include allowable subject matter. Therefore, these claims are no longer at issue in the appeal, and the grouping of the claims does not include claims 4, 5, 16, and 17.

(8) Claims Appealed

The copy of the appealed claims contained in the Appendix to the brief is correct.

(9) Prior Art of Record

3,989,157	Veenema	11-1976
4,557,091	Auer	12-1985
6,189,269	De Zen	02-2001
4,715,077	Shepherd	12-1987

(10) Grounds of Rejection

The following new grounds of rejection are applicable to the appealed claims:

New Grounds of Rejection

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. **Claim 1 is rejected under 35 U.S.C. 103(a) as being unpatentable over Shepherd (US 4,715,077) in view of Auer (US 4,557,091).**

Regarding claim 1, Shepherd discloses a floor element, two wall elements positioned atop the floor element and positioned spacedly apart from one another and extending uprightly from the floor element, and a ceiling element positioned atop the two wall elements, as shown in the illustration of the passenger loading bridge (2) with

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sections (A,B,C) in Fig. 1. Shepherd fails to disclose the floor, wall, and ceiling elements as being fabricated from at least one pultruded panel. Auer teaches structural systems, such as panel (12) with various interlocking panel joining members manufactured by extruding fiberglass-reinforced plastic in a "pultrusion" process which is known in the art (Col 5, lines 3-7). Auer notes that the "pultruded" panels and interlocking members produced by pultrusion provide an extremely light-weight and strong structural system which is also impervious to many types of corrosive substances (Col 5, lines 7-11). It would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the floor, wall, and ceiling elements of Shepherd to be fabricated from pultrusion as taught by Auer, since Auer states in column 5, lines 3-11 that the pultrusion process is known in the art and that pultruded panels and interlocking members produced by pultrusion provide an extremely light-weight and strong structural system which is also impervious to many types of corrosive substances and provides a superior structural system.

3. Claims 2 and 3 are rejected under 35 U.S.C. 103(a) as being unpatentable over Shepherd (US 4,715,077) and Auer (US 4,557,091) as applied to claim 1 above, and further in view of De Zen (US 6,189,269B1).

Regarding claim 2, the combination of Shepherd and Auer fails to disclose a honeycomb cross-section and at least one channel therein defining an elongate channel therein dimensioned to receive and retain wiring. Shepherd does disclose a flexible carrier (32) which runs along the top of tunnel sections (A) and (B) and houses conduits therein (Col 1, lines 44-47, Col 2, lines 27-32). Shepherd notes the need to connected

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utility conduits and fluid supply lines between the passenger terminal and parked aircraft (Col 1, lines 21-47). De Zen teaches wall members securing wiring in channels interiorly of a hollow structure formed by the wall forming member and other wall forming members (see abstract). The wiring channel forms an isolated compartment within the formed wall structure, leaving an unobstructed wiring raceway within the wall structure (Col 3, lines 14-24), and it is highly desirable to conceal electrical wiring (Col 6, lines 56-57). De Zen also teaches channels defining a honeycomb cross-section, seen as wall panels (2) having exterior and interior walls (7, 8) connected by transverse webs (9) forming internal cells (10) (Col 5, lines 13-15). De Zen utilizes the cells for pouring concrete and forming an extremely strong permanent wall structure (Col 5, lines 15-17). It would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the panels of Shepherd to have a honeycomb cross-section and be dimensioned to receive and retain wiring as taught by De Zen, since De Zen states in column 5, lines 15-17 that the cells form an extremely strong permanent wall structure, and De Zen states that having a channel in an isolated compartment formed in the wall structure provides an unobstructed wiring raceway (Col 3, lines 14-24), and that it is highly desirable to conceal electrical wiring (Col 6, lines 56-57), which is a need recognized by Shepherd in column 1, lines 21-47. Thus, the wiring is protected from harmful exterior environmental conditions and damage.

Regarding claim 3, Shepherd illustrates the flexible carrier (32) housing conduits along the passageway sections (A, B) oriented parallel to a longitudinal axis of the passageway in Fig. 1. Yet the combination of Shepherd and Auer fails to disclose

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each panel defining a honeycomb cross-section that has a longitudinal axis oriented parallel to the longitudinal axis of the passageway. De Zen teaches walls formed of a plurality of wall panels (2) and a ceiling formed by a plurality of roof panels (4) (see Figs. 2, 4 and 8). De Zen also teaches panels defining a honeycomb cross-section as discussed regarding claim 2 above. It would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the panels of Shepherd to have a honeycomb cross-section with a longitudinal axis oriented parallel to the longitudinal axis of the passageway, since De Zen teaches that it is known to have structures comprising ceilings and walls of a plurality of panels and that the cell shape forms an extremely strong permanent wall structure (Col 5, lines 15-17), and Shepherd recognizes the need to house wiring and conduits longitudinally along the length of the passenger loading bridge, which would thereby result in the longitudinal axis of the honeycomb cross-section and longitudinal axis of the panels being parallel.

4. Claim 6 is rejected under 35 U.S.C. 103(a) as being unpatentable over Shepherd (US 4,715,077) in view of Auer (US 4,557,091) and De Zen (US 6,189,269B1).

Regarding claim 6, Shepherd discloses the structure of each passageway module as discussed regarding claim 1 above. Furthermore, Shepherd discloses a connection structure, seen as the connection between the modules (A), (B), and (C) in Fig. 1. Shepherd fails to disclose the panels being pultruded and defining a honeycomb cross-section. Auer teaches panels formed in a pultrusion process as discussed regarding claim 1 above. De Zen teaches panels with a honeycomb cross

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section as discussed regarding claims 3-5 above. It would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the elements of Shepherd to be fabricated from pultrusion as taught by Auer and defining a honeycomb cross section as taught by De Zen, since Auer states in column 5, lines 3-11 that the pultrusion process is known in the art, and that pultruded panels and interlocking members produced by pultrusion provide an extremely light-weight and strong structural system which is also impervious to many types of corrosive substances, and De Zen states in column 5, lines 15-17 that the cell shape forms an extremely strong permanent wall structure.

4. Claims 7-10 are rejected under 35 U.S.C. 103(a) as being unpatentable over Shepherd (US 4,715,077), Auer (US 4,557,091), and De Zen (US 6,189,269B1) as applied to claim 6 above, and further in view of Veenema (US 3,989,157).

Regarding claim 7, the combination of Shepherd, Auer, and De Zen fails to disclose the claimed recitation. Veenema discloses a container with a pair of frame structures, seen as upper rail (30a) and lower rail (34a) in Figs. 1 and 2, having an upwardly extending ear and downwardly extending ear, seen as the downwardly extending portion of rail (30a) and the upwardly extending portion of rail (34a). A first pair of angle defining, elongate connection elements are seen as flanges (46, 54) in Fig. 5 on upper rail (30a). A second pair of angle defining, elongate connection elements are seen as flanges (76, 68) in Fig. 2 on lower rail (34a). An engaging structure can be viewed as teeth (64) or ridge (66) shown in Fig. 2. With respect to the recitations in lines 4-6, 7-9, and 10-13, it has been held that a recitation with respect to the manner in

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which a claimed apparatus is intended to be employed does not differentiate the claimed apparatus from a prior art apparatus satisfying the claimed structural limitations. *Ex parte Masham*, 2 USPQ2d 1647 (1987). It would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the elements of Shepherd fabricated from pultrusion as taught by Auer and defining a honeycomb cross section as taught by De Zen, to include a pair of frame structures, a first pair of angle defining elongate connection elements, a second pair of angle defining elongate connection elements, and engaging structure as taught by Veenema, since Veenema states that such an assembly can be quickly and easily assembled with the joints holding the panels securely and bearing the strain with their strong construction (Col 1, lines 48-66).

Regarding claim 8, Veenema illustrates quadrilateral frames, seen as the rails (30a, 34a) in Figs. 1 and 2. These rails define a passageway opening therethrough between the flanges (54,46 and 44, 52) in the upper rail (30a), and flanges (76, 68) in lower rail (34a).

Regarding claim 9, Veenema discloses a bolt, seen as ridge (66) in Fig. 2, although fails to disclose a nut in combination therewith. Veenema states that the ridge (66) penetrates the respective panel core (22) and cooperates with walls (62) to hold the molding (60) securely on the end of the panel (Col 2, lines 59-63). It would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the ridge (66) of Veenema to be utilized in combination with a nut, since Veenema utilizes the ridge (66) as a fastening means between the molding (60) of the

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rail (30a) and the panel (Col 2, lines 59-63), and substituting a nut and bolt would accomplish the same purpose of fastening, and nuts and bolts are commonly used, readily accessible fastening means.

Regarding claim 10, Veenema discloses that a conventional adhesive may be provided between a panel and a molding (60) on the rails (Col 2, lines 56-57).

5. Claims 11-15 are is rejected under 35 U.S.C. 103(a) as being unpatentable over Shepherd (US 4,715,077) in view of Auer (US 4,557,091), De Zen (US 6,189,269B1), and Veenema (US 3,989,157).

Regarding claim 11, Shepherd discloses the structure of each passageway module as discussed regarding claim 1 above. Furthermore, Shepherd discloses a connection structure, seen as the connection between the modules (A), (B), and (C) in Fig. 1.

Shepherd fails to disclose the panels being pultruded, defining a honeycomb cross-section, or having the frame structures recited. Auer teaches panels formed in a pultrusion process as discussed regarding claim 1 above. De Zen teaches panels with a honeycomb cross section as discussed regarding claims 3-5 above. It would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the elements of Shepherd to be fabricated from pultrusion as taught by Auer and defining a honeycomb cross section as taught by De Zen, since Auer states in column 5, lines 3-11 that the pultrusion process is known in the art, and that pultruded panels and interlocking members produced by pultrusion provide an extremely light-weight and strong structural system which is also impervious to many types of corrosive

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substances, and De Zen states in column 5, lines 15-17 that the cell shape forms an extremely strong permanent wall structure.

With respect to the frame structures, Veenema teaches a container with a pair of frame structures, seen as upper rail (30a) and lower rail (34a) in Figs. 1 and 2, having an upwardly extending ear and downwardly extending ear, seen as the downwardly extending portion of rail (30a) and the upwardly extending portion of rail (34a). A first pair of angle defining, elongate connection elements are seen as flanges (46, 54) in Fig. 5 on upper rail (30a). A second pair of angle defining, elongate connection elements are seen as flanges (76, 68) in Fig. 2 on lower rail (34a). An engaging structure can be viewed as teeth (64) or ridge (66) shown in Fig. 2. With respect to the functional recitations, it has been held that a recitation with respect to the manner in which a claimed apparatus is intended to be employed does not differentiate the claimed apparatus from a prior art apparatus satisfying the claimed structural limitations. *Ex parte Masham*, 2 USPQ2d 1647 (1987). It would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the elements of Shepheard to include a pair of frame structures, a first pair of angle defining elongate connection elements, a second pair of angle defining elongate connection elements, and engaging structure as taught by Veenema, since Veenema states that such an assembly can be quickly and easily assembled with the joints holding the panels securely and bearing the strain with their strong construction (Col 1, lines 48-66).

Regarding claim 12, Veenema illustrates quadrilateral frames, seen as the rails (30a, 34a) in Figs. 1 and 2. These rails define a passageway opening therethrough

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between the flanges (54,46 and 44, 52) in the upper rail (30a), and flanges (76, 68) in lower rail (34a).

Regarding claim 13, Veenema discloses that a conventional adhesive may be provided between a panel and a molding (60) on the rails (Col 2, lines 56-57).

Regarding claim 14, Shepherd fails to disclose a honeycomb cross-section and at least one channel therein defining an elongate channel therein dimensioned to receive and retain wiring. Shepherd does disclose a flexible carrier (32) which runs along the top of tunnel sections (A) and (B) and houses conduits therein (Col 1, lines 44-47, Col 2, lines 27-32). Shepherd notes the need to connected utility conduits and fluid supply lines between the passenger terminal and parked aircraft (Col 1, lines 21-47). De Zen teaches wall members securing wiring in channels interiorly of a hollow structure formed by the wall forming member and other wall forming members (see abstract). The wiring channel forms an isolated compartment within the formed wall structure, leaving an unobstructed wiring raceway within the wall structure (Col 3, lines 14-24), and it is highly desirable to conceal electrical wiring (Col 6, lines 56-57). De Zen also teaches channels defining a honeycomb cross-section, seen as wall panels (2) having exterior and interior walls (7, 8) connected by transverse webs (9) forming internal cells (10) (Col 5, lines 13-15). It would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the panels of Shepherd to have a honeycomb cross-section and be dimensioned to receive and retain wiring as taught by De Zen, since De Zen states in column 5, lines 15-17 that the cells form an extremely strong permanent wall structure, and De Zen states that having

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a channel in an isolated compartment formed in the wall structure provides an unobstructed wiring raceway (Col 3, lines 14-24), and that it is highly desirable to conceal electrical wiring (Col 6, lines 56-57), which is a need recognized by Shepherd in column 1, lines 21-47.

Regarding claim 15, Shepherd illustrates the flexible carrier (32) housing conduits along the passageway sections (A, B) oriented parallel to a longitudinal axis of the passageway in Fig. 1. De Zen teaches panels defining a honeycomb cross-section as discussed regarding claim 2 above. It would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the panels of Shepherd to have a honeycomb cross-section with a longitudinal axis oriented parallel to the longitudinal axis of the passageway, since De Zen teaches that it is known to have structures comprising ceilings and walls of a plurality of panels and that the cell shape forms an extremely strong permanent wall structure (Col 5, lines 15-17), and Shepherd recognizes the need to house wiring and conduits longitudinally along the length of the passenger loading bridge, which would thereby result in the longitudinal axis of the honeycomb cross-section and longitudinal axis of the panels being parallel.

6. Claims 4, 5, 16, and 17 are no longer under appeal, as stated above, since they include allowable subject matter.

(11) Response to Argument

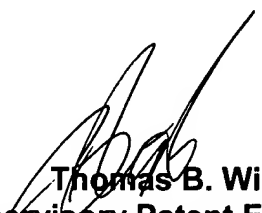
Applicant's arguments with respect to previously rejected claims 1-17 have been considered but are moot in view of the new grounds of rejection. Applicant's

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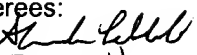
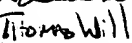
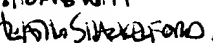
arguments were persuasive, and upon further consideration, the Examiner is rejecting the claims with a new combination of prior art, as noted above. The Examiner's Answer is therefore including a new ground of rejection per §41.43, as part of the new rules of practice before the Board of Patent Appeals and Interferences effective September 13, 2004.

Respectfully submitted,


Alexandra K. Pechhold


Thomas B. Will
Supervisory Patent Examiner
Group 3600

AKP
October 1, 2004

Conferees:
AKP 
TBW 
HS 

LAURENCE B BOND
TRASK BRITT
P O BOX 2550
SALT LAKE CITY, UT 84110